

REMARKS

Claims 8-28 remain pending in the case. Claims 1-7 and 29-31 stand withdrawn. New claims 32-34 are added by this amendment. Reconsideration on the basis of the above amendments and remarks below is kindly requested.

Declaration

It is stated in the Office Action that the declaration is defective because it is not signed and dated by the applicant. Applicant submits herewith a copy of the signed and dated declaration that was forwarded to the U.S. Patent Office on September 27, 2001, in response to a Missing Parts notification.

Substantive Rejections

Claims 8-9, 14-17, 21-24 and 27 are rejected under 35 U.S.C. §102 as being anticipated by Delente or Miekka.

Claims 10-11, 13, 18, 20 and 26 are rejected under 35 U.S.C. §103 as being unpatentable over Delente in view of Miekka.

Delente teaches a way of capturing "expensive" carbon dioxide isotopes. Carbon dioxide is **not** generated from the system of Delente, but rather directly input to the system as a reactant.

Miekka discloses adding an acid such as hydrochloric acid to limestone to release carbon dioxide (col. 3, lines 62+).

Claim 8 recites in part:

"... (d) producing carbon dioxide from said aqueous carbonate solution by processing said solution in a way that causes carbon dioxide in said solution to off-gas from said solution; and

(e) mixing said carbon dioxide with said first gas to produce a gas mixture having a predictable level of carbon dioxide and flowing said gas mixture into said chamber."

Delente does not disclose producing carbon dioxide from an aqueous carbonate solution by processing the solution to causes carbon dioxide in said solution to off-gas. In addition, Delente does not disclose mixing a gas mixture comprising the off-gassed carbon dioxide with a first gas that is substantially free of carbon dioxide.

Miekka discloses the application of acid to limestone to produce carbon dioxide. It is not clear that Miekka releases carbon dioxide in an aqueous carbonate solution. It is clear, however, that Miekka does **not** disclose mixing a gas mixture comprising the off-gassed carbon dioxide with a first gas that is substantially free of carbon dioxide. Miekka, in Fig. 2, does appear to disclose feeding a substantially carbon dioxide-free gas flow into a furnace generator 36, and **not** mixing a generator output (from an aqueous solution or otherwise) with a substantially carbon dioxide-free gas flow.

Accordingly, Applicant submits that the subject matter of claim 8 is not disclosed by Delente or Miekka.

Claim 15 recites in part:

"... wherein the step of producing carbon dioxide from said aqueous carbonate solution includes one or more of the steps of:

stirring said aqueous carbonate solution while evacuating a gaseous phase substance above a top surface of said solution so as to facilitate diffusion of carbon dioxide from said solution into the evacuated space; and

flowing a gaseous phase substance through said aqueous carbonate solution."

Delente does **not** producing carbon dioxide by any one of these steps. Delente inputs carbon dioxide into its system.

Miekka produces carbon dioxide with acid. The properties of the acid do the work to release the carbon dioxide. In contrast, in the invention of claim 15 and its dependents, external work or energy is applied to the system **to cause carbon dioxide to off-gas** from the aqueous carbonate solution. Stirring the solution (mechanically, sonically or otherwise), evacuating surface gas or flowing a gas through the solution, requires external energy. Using any of these steps to cause carbon dioxide to off-gas from solution is not disclosed by Miekka.

Accordingly, applicant submits that the subject matter of claim 15 is not disclosed by Delente or Miekka.

Claim 23 recites in part:

"... processing said aqueous carbonate solution to produce carbon dioxide by causing carbon dioxide dissolved in said solution to off-gas from said solution, wherein said carbon dioxide is produced

substantially without addition of acid to said aqueous carbonate solution."

Delente does not teach processing an aqueous carbonate solution to produce carbon dioxide.

Miekka discloses the use of acid to produce carbon dioxide.

Accordingly, applicant submits that the subject matter of claim 23 is not disclosed by Delente or Miekka.

Dependent Claims

Since the independent claims 8, 15 and 23 as amended are not taught or suggested by the cited art, the dependent claims are by definition allowable.

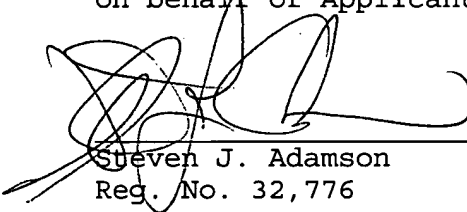
In addition, and specifically to limitations of the dependent claims, Delente and Miekka do not suggest agitating or stirring the aqueous carbonate solution **to produce** carbon dioxide. That is done by acid (in Miekka). They also do not teach evacuating gas at the surface of that solution **to cause** carbon dioxide to off-gas therefrom (again, Miekka teaches acid or, in the furnace example, heat). Furthermore, Delente and Miekka do not disclose or suggest flowing the aqueous carbonate solution through the generator vessel (Fig. 6 of Miekka merely teaches a reservoir having a solution that contains carbon dioxide - the reservoir is downstream of the generator).

Accordingly, Applicant respectfully submits that Claims 8-28 and 32-34 are now in condition for allowance and early notification of same is respectfully requested. Should the Examiner believe that a telephone conference would help further the prosecution of this case, the Examiner is requested to contact the undersigned at the listed telephone number.

The Assistant Commissioner is hereby authorized to charge underpayment of any fees (including any filing fees under 37 C.F.R. \$1.16 for additional claims and any patent application processing fees under 37 C.F.R. \$1.17 including any fee for extension of time) associated with this communication or credit any overpayment to Deposit Account No. 01-0272. A duplicate copy of this authorization is enclosed.

Respectfully Submitted
on behalf of Applicant,

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